

## Abstract

The present invention provides a communication device and a digital encoding method thereof. The communication device comprises a first and a second emitting devices respectively communicating at a first and a second communication channels. Each emitting device emits the same piece of data through continually emitting the same signal section for six times. The signal section is encoded in five bits. A receiving device alternately jumps between the first and second communication channels to receive signal sections emitted by the first and second emitting devices. The time of the receiving device at each communication channel comprises a phase lock time and a reception time of a whole signal section. The present invention has the advantages of having a very good quality of data transmission, reducing the cost, saving installation space, and facilitating the operation.